Exercise 19-2

This is the second in a series of exercise that will demonstrate using cross-sections to determine bridge length. The group exercise makes use of the proposed cross-sections for Route50 that were drawn in Exercise 15-1. In this exercise, a XS Report is used to create a new TIN, which will serve as the surface model for other cross-sections.

1. Open the MicroStation file **t:\br-proj\a_geopak\d5\j5p0100\data\xs_50_j5p0100.dgn**.

2. Open the project **t:\br-proj\a_geopak\d5\j5p0100\project\j5p0100.prj**.

   Enter the as user **userc**.

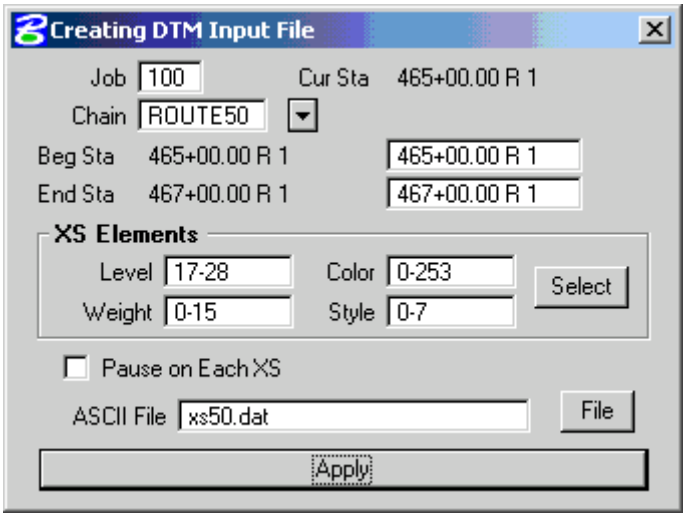
   Go into **Road**.

3. Select the **Route50** working alignment.

4. Choose **Reports and XS Quantities** from the **Project Manager** dialog.

   Select the **DTM Input** report.

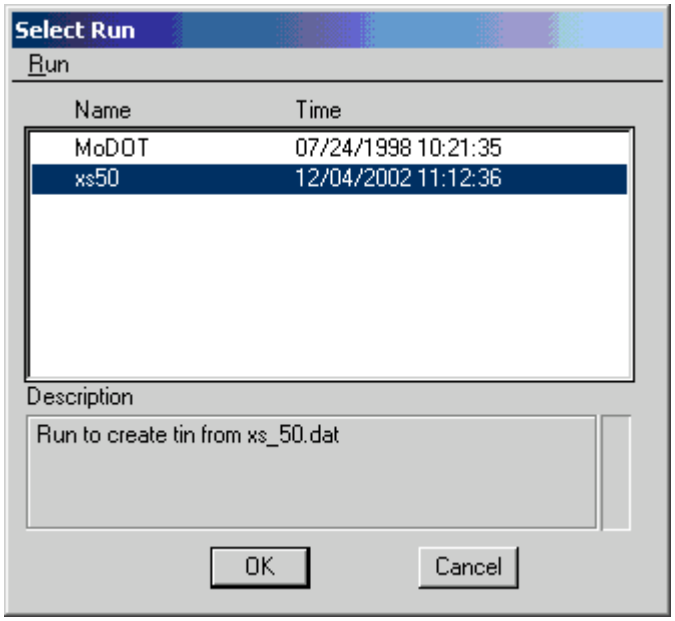
   The dialog shown below will appear. Enter the information as shown:



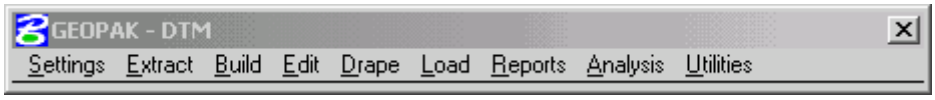
   Once the information is entered, click on **Apply**. Close the Reports and XS Quantities dialog when the Create DTM Input File process is completed.

5. Choose **Existing Ground** from the **Project Manager** dialog.

Copy the **MoDOT** run to **xs50**, and open the **xs50** run.

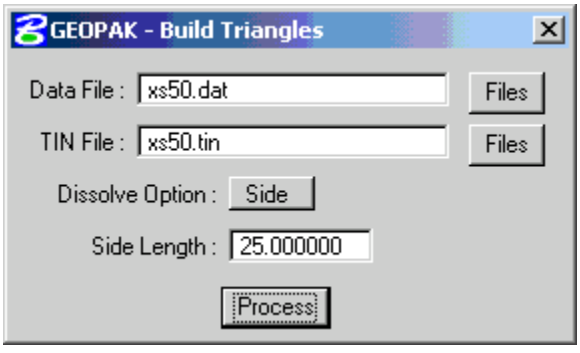


From the DTM menu, shown below, select **Build > Triangles**.



When the following dialog appears, populate it as shown below:

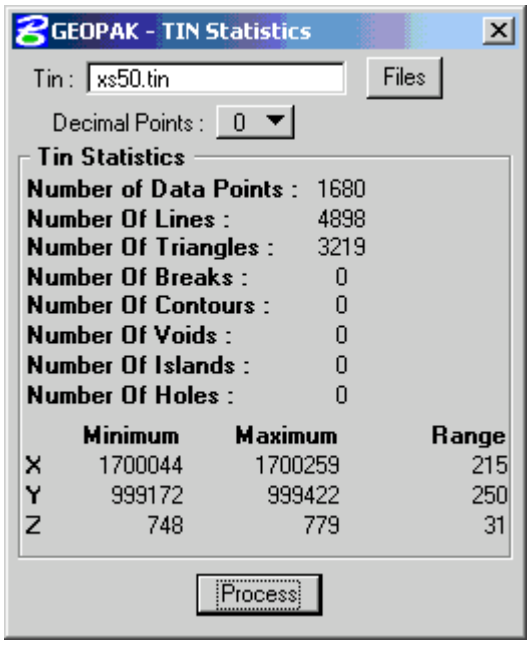
Data File:	**xs50.dat**
TIN File:	**xs50.tin**
Dissolve Option:	**Side**
Side Length:	**25**



When the "Build Triangles Complete" appears in the MicroStation Status Bar, close the Build Triangles dialog. Say YES, when asked if you want to save the settings.

6. Select **Reports > Triangle Statistics** from the DTM menu.

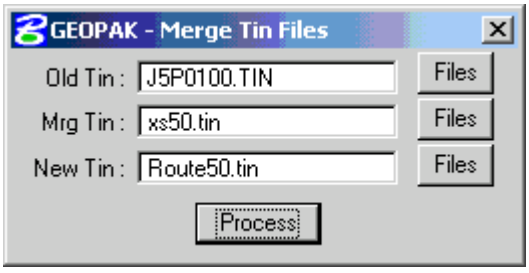
   When the following dialog appears, load the file **xs50.tin** and Process the report. Compare your results to those shown below.



7. Select **Build > Merge TINs** from the DTM menu.

   When the following dialog appears, populate it as shown below:

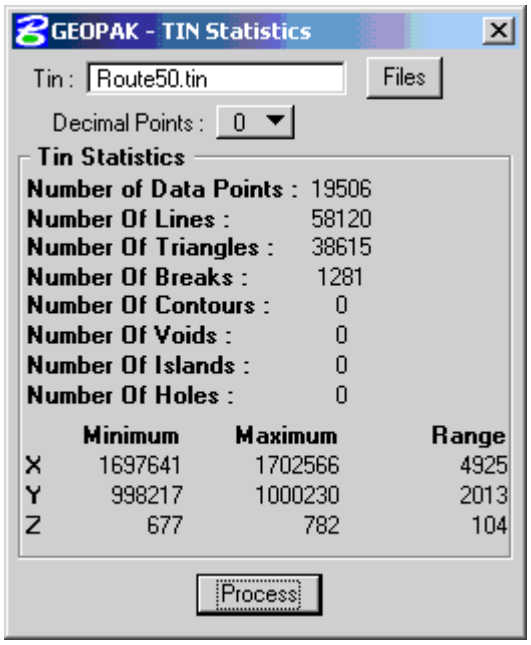
   Old Tin: **J5P0100.TIN**
   Mrg Tin: **xs50.tin**
   New Tin: **Route50.tin**



   Once the dialog is set, click on **Process**. When the "Build Merge Complete" appears in the MicroStation Status Bar, close the Merge Tin Files dialog.

8. Select **Reports > Triangle Statistics** from the DTM menu.

   When the following dialog appears, load the file **Route50.tin** and Process the report. Compare your results to those shown below.



   If you wish you may open either topo_J5P0100.dgn (2D file) or dtm_J5P0100.dgn (2D file) and view either of the tins created in this exercise. The Route50.tin will serve as the existing ground tin for Exercise 19-3.

   Exit the DTM tools.